

SECTION VI: Containment and Cleanup Actions

1. Agency Jurisdiction:

EPA and ADEC have overall Responsible Party (RP) oversight responsibilities for all aspects of the response. However, agency jurisdictions overlap in the areas of containment, cleanup actions and restoration.

- ADNR manages the land on which the damaged pipeline is located and the area contaminated by the oil spill. The contaminated area lies within the Tanana Valley State Forest.
- ADNR Division of Forestry has been, and continues to be, actively involved in the land use permitting process as well as the review of APSC's rehabilitation plan.
- ADF&G monitors the potential impact to fish and wildlife.
- ADEC maintains jurisdiction and oversight of containment and cleanup operations.
- The State Pipeline Coordinator's Office within ADNR administers the State Right of Way Lease for TAPS.
- BLM, Office of Pipeline Monitoring has jurisdiction through the Federal Agreement and Grant of Right of Way for TAPS.

Grant / Lease Requirements - Stipulation 2.12.1 Restoration -- "Areas disturbed by Permittees/Lesseees shall be restored by Permittees/Lesseees to the satisfaction of the Authorized Officer/Pipeline Coordinator as stated in writing" for the Right of Way.

For purposes of Stipulation 2.12, "disturbance" is a deviation from the natural and normal condition of the land. "Restore" means returning a disturbed site to its original or normal physical condition and natural biological productivity and diversity by means of the best available protection, stabilization, erosion control and habitat reconstruction and revegetation techniques, with the intent of reestablishing native plant species. Restoration is completed as soon as possible, as required by Stipulation 2.4.4.1.

The Authorized Officer and State Pipeline Coordinator interpret restoration success on a site-specific basis and consider whether the restoration measures taken: (1) remove all contaminated material; (2) to the extent possible, return a disturbed site to its original or normal physical condition and natural biological productivity and diversity with reestablishment of native plant and animal species; (3) prevent erosion; (4) conform to the adjoining land forms and approximate the original land contours; (5) maintain pipeline system integrity; (6) remove improvements as required by the appropriate authority; and (7) provide for public safety.

These jurisdictional authorities are applied through the SOSC to ensure a single, coordinated approach.

2. Background:

It is essential to understand that there are several components to a spill response, primarily source mitigation, containment, cleanup, and restoration. Only containment and cleanup are discussed in this section. Containment may be defined as those actions which prevent the spill from spreading or migrating at an avoidable rate, thereby minimizing the area affected.

There are eight criteria listed in 18AAC 75.320 which must be applied to determine the adequacy of containment and cleanup. These criteria address the availability and proper utilization of appropriate spill response resources. For the containment portion of this spill response, all eight criteria were met. For the cleanup portion, which is still in progress, all eight criteria are also being met.

In addition, it is important to understand that this cleanup presents some rather unique challenges which require time for review and appraisal of the various options. It also involved a pilot test of various techniques to aid in the decision making. The range of options has been systematically refined and the final decisions are imminent. However, since the final decisions have not been made, only lessons learned from actions taken to this point will be included.

3. Observations and Recommendations:

- A. Observation:** It is of paramount importance to keep a spill to land confined to land. To accomplish this objective the proper resources are earth-moving equipment, pumps, hoses, rolling and stationary tankage. Contingencies must be put in place to sling blocking materials and boom to remote locations using helicopters should primary containment prove insufficient. Since major areas of TAPS are inaccessible except by the service road and air, the planning process should identify helicopter assets capable of transporting equipment such as boom, tankage, pumps and skimmers to remote containment areas.

Recommendation: None. Both of these actions were taken on this spill.

- B. Observation:** Source control and containment actions should occur concurrently. When it is determined that the time to achieve source control will exceed the time to achieve containment, increased emphasis must be placed on achieving and maintaining the containment. This approach proved successful as the footprint of this spill did not significantly increase after about 7-1/2 hours.

Recommendation: None.

- C. Observation:** Pre-approved and pre-identified containment sites should be activated as quickly as possible (using a checklist) in spill events where even a remote chance exists that oil will reach water.

Recommendation: Develop a checklist to focus on critical response information such as determining the location of pre-determined containment sites, determining the rate of advance of the oil spill and containment actions.

- D. Observation:** Attention to the life safety of responders and the public must be rigorously applied to all phases of an oil spill response. This response presented unique challenges that were addressed with good site control measures and innovation. Examples are a) the close coordination of response mobilization directors with the Alaska State Troopers and APSC Security from the time of spill discovery (2:55 PM) to the apprehension of the alleged perpetrator (6:40 PM) which allowed response personnel to safely enter the spill scene, and b) the use of the Pump Around Skid to reduce the volume of oil in the pipeline segment. The use of the Pump Around Skid, as an alternative source control measure, reduced the amount of oil spilled to ground when it was determined that the atmospheric conditions at the leak point were too hazardous for personnel to enter.

Recommendation: None.

- E. Observation:** Adequate personnel and supporting resources were applied in a timely manner to allow pre-planning for subsequent phases of the response. The environmental unit took proactive steps to develop and implement plans, in concert with agency personnel, to gather site contamination information related to the extent of surface oil contamination, depth of soil penetration, and develop predictions of the free oil direction and rate of advance. These timely efforts provided the Unified Command and the rest of the response organization with solid data to use in selecting the best tactics.

Recommendation: None.

- F. Observation:** Innovation and use of different tactics to fit the spill should be a part of every response. An innovative tactic was developed to accelerate the drainage of free oil from the forest mat. The tactic used was to create a number of shallow trenches in a linked chevron pattern that followed the natural slope of the site and drained into existing collection pits. Chainsaws were used to cut approximately 4 – 6 inches through the vegetative mat, and lift the mat out to make a shallow trench. This tactic is familiar to forest fire fighters for building fire breaks.

Recommendation: This tactic should be memorialized in response tactic manuals, such as the Alaska Clean Seas Tactics Manual.

- G. Observation:** The sudden release of crude oil at Milepost 400 posed a low risk to fish and wildlife in the immediate area, since the spill impacted area was limited. Shorty Creek and the Tolovana River are located approximately ½- and 1-mile from the spill site, respectively. Land between these fish-bearing waters and the spill site is relatively level terrain and covered by dense natural vegetation. Although a variety of wildlife transits through this area, there is no information suggesting that wildlife habitually use this area for nesting, breeding, calving, staging or feeding. The wildlife exclusionary fencing installed during the clean-up phase will minimize accidental contact with contaminants by animals traveling through or foraging in the area. The fence will also deter recreational snow machine users from unknowingly entering the site.

Recommendation: APSC schedule periodic site visits to ensure that the fence is functioning as intended and to perform fence maintenance as needed.



Figure VI-1: Lined containment cell